

# EXHIBIT 19

JBX Analysis Report

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**General Information**

Analysis ID:	25393
Start time:	13:47:02
Start date:	09/11/2012
Overall analysis duration:	0h 3m 20s
Sample file name:	vm_tricks_sample
Cookbook file name:	default.jbs
Analysis system description:	XP SP3 (Office 2003 SP2, Java 1.6.0, Acrobat Reader 9.3.4, Internet Explorer 8)
Number of analysed new started processes analysed:	4
Number of new started drivers analysed:	0
Number of existing processes analysed:	0
Number of existing drivers analysed:	0
Number of injected processes analysed:	0
SCAE enabled:	true
SCAE success:	true, ratio: 98%

Warnings:

- Too many NtQueryDirectoryFile calls (excessive behavior)
- Too many NtProtectVirtualMemory calls (excessive behavior)

**Classification / Threat Score**

Persistence, Installation, Boot Survival:

Hiding, Stealthiness, Detection and Removal Protection:

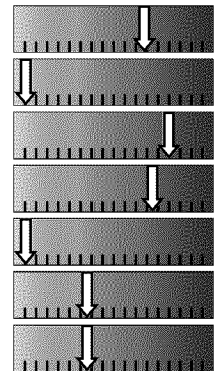
Security Solution / Mechanism bypass, termination and removal, Anti Debugging, VM Detection:

Spreading:

Exploiting:

Networking:

Data spying, Sniffing, Keylogging, Ebanking Fraud:



**Matching Signatures**

- Behavior Signatures
- Creates files inside the user directory
  - Queries a list of all running processes
  - Spawns processes
  - Urls found in memory or binary data
  - Binary may include packed or crypted data
  - Checks if the current process is beeing debugged
  - Creates files inside the system directory

Behavior Signatures

Creates mutexes

\\BaseNamedObjects\Local\c:\documents and settings\networkservice\local settings\temporary internet files\content.ie5! \BaseNamedObjects\Local\c:\documents and settings\networkservice\cookies! \BaseNamedObjects\Local\c:\documents and settings\networkservice!local settings!history!history.ie5!

Drops PE files

Enumerates the file system

Found strings which match to known social media urls

May tried to detect the virtual machine to hinder analysis (VM artifact strings found in memory)

PE sections with suspicious entropy found

Performs DNS lookups

Posts data to webserver

Tries to load a missing dll

ssleay32.dll libeay32.dll libssl32.dll

AV process strings found (often used to terminate AV products)

Binary contains a suspicious time stamp

Checks for available system drives (often done to infect USB drives)

Contains capabilities to detect virtual machines

Creates an autostart registry key

Creates autorun.inf (USB autostart)

Modifies the context of a thread in another process (thread injection)

Code Signatures

Contains functionality to download additional files from the internet

Contains functionality to enumerate / list files inside a directory

Contains functionality to query local / system time

Contains functionality to start windows services

Contains functionality to dynamically determine API calls

Startup

- system is xp
vm\_tricks\_sample.exe (PID: 656 MD5: 6B16C4526A013E744B3D91CD7A091C36)
svchst.exe (PID: 1084 MD5: 6B16C4526A013E744B3D91CD7A091C36)
cleanup

Created / dropped Files

Table with 2 columns: File Path, MD5. Rows include paths like C:\Documents and Settings\NetworkService\Local Settings\Application Data\LT.exe and their corresponding MD5 hashes.

Contacted Domains

Table with 7 columns: Name, IP, Name Server, Active, Registrar, e-Mail. Rows include mahaajan.in and http://mahaajan.in/dd/.

Contacted IPs

Table with 4 columns: IP, Country, Pingable, Open Ports. Rows include IP addresses 208.91.198.109, 195.186.1.121, and 195.186.4.121.

